Indiana 2008 Five Percent Report To FHWA

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1.0 Introduction

The latest federal transportation act, SAFETEA-LU, created the Highway Safety Improvement Program (HSIP) as a new core federal aid funding source. The purpose of the HSIP is to reduce traffic fatalities and serious injuries on public roads. As part of the new HSIP, the states are required to submit an annual report describing not less than five percent of their highway locations exhibiting the most severe safety needs. The intent of this provision is to increase public awareness of the highway safety needs and challenges around the country. Vehicles on Indiana roads each year travel 74 billion miles. There are nearly 96,300 miles of public roads in Indiana. State roads, U.S. highways, and interstates (those on the state (INDOT)-jurisdictional network) make up about 11,200 miles of that total, or roughly 12 percent.

Each year in Indiana 190,000 to 210,000 traffic crashes take place, which include 800 to 900 fatal crashes, 40,000 to 45,000 personal-injury crashes, and 150,000 to 160,000 property-damage crashes. The fatal crash events result in 900 to 950 persons deaths annually. Personal-injury crash events result in injuries to 55,000 to 60,000 persons, of which about 3,500 persons are seriously injured (incapacitating injury). The personal, societal, and economic costs of these crashes are staggering. The table below summarizes the crash types and persons injured or killed for 2007.

Crash Type	2007 Totals
Fatal	803
Incapacitating Injury	30,69
Non-Incapacitating	34,874
Property Damage	166,215
Total Crashes	204,961
Persons Injured	52,541
Persons Killed	897

Factors contributing to traffic crashes and resulting losses are many, complex, and interrelated. A principal factor is driver behavior, including speeding, driving while impaired, aggressive driving, failure to use seatbelts, and operating a car or truck while drowsy or distracted. Other factors are vehicle condition (e.g., tire tread) and on-board safety features (e.g., anti-lock brakes), intensity of police enforcement, weather, and circumstances relating to emergency responders. Also, the engineering status of the various elements of the physical road infrastructure is a factor in crash risk, such as the sharpness of curves, the shoulder width, the sight distance, and the condition of traffic control devices.

Just as multiple factors contribute to road safety, the countermeasures available to improve operating conditions at select sites are numerous, often best employed in site specific combinations. These measures may include targeted police enforcement, (driver) education, or road engineering enhancement, as well as many other practices.

Before adequate safety countermeasures can be applied, the road network must be screened to identify locations that need safety improvements. The presented 2008 Five Percent Report provides a list of Indiana locations with safety needs. This report also presents the screening

method and the accompanied implementation effort. Since the 2007 Five Percent Report, the following advancements have been made and incorporated in this year's Report:

- A Geographic Information System (GIS) map that includes all Indiana public roads was used. All local road segments and intersections are ranked this year. This is the most significant addition to this year's Five Percent Report.
- The classification tree technique was applied to incorporate expected crash cost estimates based on land development and demographic features of the area around the local road.
- Long road segments have been split into shorter sub-segments to be able to identify small network components with safety needs such as sharp curves. Interchange freeway and non-freeway segments tend to be longer than other types of segments to accommodate the interchange impact zone. No changes were made to identification of intersections
- In the 2007 report the interchange was postulated as having an impact area the size of a 500 ft radius circle from the center of an interchange regardless of the interchange dimensions. In this year's report, interchanges are represented as freeway or non-freeway segments determined by the most external ramp terminal points of the interchange. This is an important step towards accurate screening of interchange systems in Indiana.
- This year's Five Percent Report uses a slightly larger number of crashes successfully assigned to the road network. This improvement was accomplished by further improving the road network electronic representation and by a more rational method for assigning crashes to road interchanges.

The ranking criteria for state road intersections and segments were kept similar to last year's method of crash loss index and crash frequency/density. The local road segments and intersections were ranked by the statistical significance of the difference between the occurred and expected crash costs. Both methods address two important requirements: (1) statistical soundness and (2) consistency with the national safety management policy.

2.0 Identification Method

Road locations with severe safety needs are identified using the GIS transportation analysis package TransCAD and ArcGIS. Most of the steps leading to the identification of the five percent locations were facilitated through the mapping features of TransCAD and the in-house developed tool HATNET¹.

Road Location Definitions

A *road location* is a road intersection, an interchange, or a road segment.

A road intersection is a portion of the roads within the intersection impact zone. The intersection impact zone is a circle around the intersection center with a radius of 250 ft. If the impact zones of adjacent intersections overlap, then the midpoint between the intersections determines their impact zones boundaries.

A road interchange is a portion of the roads within the interchange impact zone. The interchange impact zone consists of freeway and non-freeway segments. For freeway segments the interchange zone extents 1500 ft beyond the farthest merging or diverging point. The non-freeway segments extend 250 ft beyond the farthest merging or diverging point.

A *road segment* is a road stretch between the intersection/interchange impact zones. Long road segments are divided into smaller parts to allow more specific location with safety needs (such as curves). Rural segments longer than 0.5 mile are divided into sub-segments whose lengths are as close to 0.5 mile as possible. Urban road segments longer than 0.25 mile are divided into sub-segments whose lengths are as close to 0.25 mile as possible.

Evaluated in the 2008 Five Percent Report are 343,811 intersections (39,454 state intersections and 304,357 local intersections) and 672,341 road segments (46,798 state segments and 625,543 local segments). An additional 974 road interchange segments (374 freeway segments and 600 non-freeway segments) represent a total of 340 interchange facilities. Interchange facilities include diamond, full and partial clover-leaf, directional, trumpet, jug-handle and other types of facilities. All freeway interchange segments are part of the state road system while the non-freeway roadway segments can be state or local segments.

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¹ HATNET: A Hazardous Network Analysis tool developed in GIDSK environment of TransCAD by Center for Road Safety (CRS)

Crash Cost Assignment

Three years of crashes (2005-2007) were assigned to intersections and road segments (including the interchange segments). Crash severity is classified in four categories:

- i. Property damage only crashes (PDOC),
- ii. Non-incapacitating injury crashes (NINC),
- iii. Incapacitating injury crashes (IINC), and
- iv. Fatal crashes (FTC).

Actual crash costs vary due to many factors such as travel speed and time response time for emergency service providers to arrive at the crash site and transport injured to hospitals. The average cost of PDOC and NINC crashes is \$7,500 while the average cost of one fatality is \$1,150,000 and one incapacitating injury is \$52,900 (source: National Safety Council, 2005, http://www.nsc.org/lrs/statinfo/estcost.htm). Therefore, the cost of a single crash is calculated as:

$$C = \$7,500 + \$52,900 \cdot IINP + \$1,150,000 \cdot FTP$$

Where:

 $C = \operatorname{crash} \operatorname{cost} (\$),$

IINP = incapacitating injuries (persons),

FTP = fatalities (persons).

The average cost of a crash in a group of locations is the total crash loss divided by the number of crashes.

Safety Performance Measures

State Road Segments and Intersections

The primary safety performance measure for state road segments is the crash frequency (FTIINC), and for state road intersections, the crash density (DEN_FTIINC). The secondary measure is the Crash Loss Index (I). The two terms are discussed as follows.

- i. The number of fatal and incapacitating injury crashes (FTIINC) at intersections and on segments the density of these crashes (DEN_FTIINC in crashes per mile) on road segments are measures that focus the road network screening on particularly severe crashes.
- ii. The crash loss index (I) is a secondary but important measure of statistical significance. A value of the crash loss index higher than three indicates that the total crash loss at a location is significantly higher than the loss expected for the exposure and the type of location. Use of this indicator increases the chance that the identified locations are those with actual safety needs and not those experiencing a random flux of crashes.

The first criterion makes the selection process consistent with the current safety management goal of reducing the frequency of severe crashes while the second criterion makes the screening process statistically sound.

The crash loss index (I) is the difference between the actual crash loss and the expected crash loss divided by the standard deviation of the difference.

$$I = \frac{L - \overline{L}}{\sqrt{\mathbf{s}_{L}^{2} + \mathbf{s}_{L}^{2}}}$$

$$L = C_{PD} \cdot PD + C_{IF} \cdot IF$$

$$\overline{L} = Y \cdot (C_{PD} \cdot a_{PD} + C_{IF} \cdot a_{IF})$$

$$\mathbf{s}_{L}^{2} = C_{PD}^{2} \cdot PD + C_{IF}^{2} \cdot IF$$

$$\mathbf{s}_{L}^{2} = C_{PD}^{2} \cdot a_{PD}^{2} \cdot D_{PD} + C_{IF}^{2} \cdot a_{IF}^{2} \cdot D_{IF}$$

Where:

I =the crash loss index,

L = total crash loss during the analyzed period, in dollars,

 \overline{L} = expected crash loss during the analyzed period, in dollars,

 \mathbf{s}_{L}^{2} variance of the crash loss,

 $\mathbf{S}_{\overline{L}}^2$ = variance of the expected crash loss,

PD = number of property-damage-only crashes in analyzed period,

IF = number of injury and fatal crashes in analyzed period,

 C_{PD} = average PD crash cost, in dollars,

 C_{IF} = average IF crash cost, in dollars,

a_{PD} = expected PDO crash frequency calculated with the safety performance functions given in Appendix C, in crashes/analyzed period,

 a_{IF} = expected IF crash frequency calculated with the safety performance functions given in Appendix C, in crashes/analyzed period,

 D_{PD} = over-dispersion parameter for a_{PD} estimate,

 D_{IF} = over-dispersion parameter for a_{IF} estimate.

Local Road Segments and Intersections

Due to missing traffic volume data, estimating the expected crash costs (loss) involves surrogate variables of exposure such as population or household density, type of area (rural, urban or suburban), employment density (indicator of economic activity), and network characteristics (e.g. network or intersection density) etc. Road segments and intersections experiencing similar crash costs (crash loss) are grouped together based on the above characteristics using a statistical technique called *classification tree*. Each group of road intersections has a corresponding expected crash cost (crash loss) per intersection. Each group of road segments has a corresponding expected crash cost (crash loss density) per mile of segment. In addition, the standard deviation of these costs within each group is reported. The actual crash loss on a road

segment or an intersection significantly exceeding the expected crash loss indicates that this road has safety needs.

Let a road group have the expected crash loss \overline{L} . Let L stand for the actual crash loss on a road. This value is calculated as follows:

$$L = \$7,500 \cdot (NINC + IINC + FATC + PDOC) + \$52,900 \cdot IINP + \$1,150,000 \cdot FATP$$

Here, NINC, IINC, FATC, and PDOC are the number of non-incapacitating, incapacitating, fatal, and PDO crashes, whereas IINP and FATP are the number of incapacitated and deceased persons for the corresponding three-year time period. For segments, the crash cost density is calculated (\$/mile) by dividing L with the length in miles.

The evidence of a safety need for a road segment or intersection is demonstrated with a low value of P, which is the likelihood of claiming that a given road has safety needs when in fact it does not:

$$P = \Pr(L \ge \overline{L})$$

Where L is the crash loss (\$) at the location and \overline{L} is the crash loss (\$) expected for the location given local conditions.

The gamma distribution was used to estimate the value of P.

3.0 Five Percent Lists

The 2008 Five Percent Report identifies road locations with the most severe safety needs through selecting intersections and road segments that are experiencing fatal and severe crashes. The state road segments and intersections were then ranked using the crash loss index. For local road segments and intersections the ranking was determined by the level of significance.

The five percent selection was determined as follows:

For State Roads

State road intersections and segments were first selected if they experienced at least one fatal or serious crash. The lists were combined and sorted in descending order by crash loss index (I). Segments or intersections were selected with the highest 'I' and the number of fatal and serious crashes were accumulated until it equaled five percent of the fatal and serious crashes that occurred on state road intersections and segments for the three year period of 2005 through 2007.

For Local Roads

Local road intersections and segments were selected if they experienced at least one fatal or serious injury crash. The list was combined and they were sorted in ascending order by crash loss significance level (P). Segments or intersections were selected with the lowest P and the number of fatal and serious crashes was accumulated until it equaled five percent of the fatal and serious crashes that occurred on local road intersections and segments for the three year period of 2005 through 2008

Sites Identified

The two step screening process has identified 254 locations with safety needs. 95 are under state jurisdiction with 23 as segments and 72 identified as intersections. The process identified 158 locations under local jurisdiction of which 35 were segments and 124 were intersections. Locations of the final five percent sites with safety needs are provided in appendix A. The five percent sites are listed in county order.

During fiscal year 2009 all of the sites on state system roads will be screened to determine if projects are already programmed that will address the safety needs of that location. Any remaining sites will undergo an engineer's review to determine the predominant crash types and the extent of safety needs. Those sites that can be addressed with cost effective countermeasures appropriate to the needs will be programmed for an improvement project or referred to behavioral specialist for countermeasures focused on enforcement or education.

The appropriate local public agency (LPA) will be notified of any sites appearing in their jurisdiction. In addition INDOT is working with the Indiana Local Technical Assistance Program (LTAP) to reestablish the Hazard Elimination Project for Existing Roads and Streets (HELPERS) project to provide assistance to LPAs in regard to addressing safety needs. The list of local sites will be provided to the HELPERS staff engineer for this purpose.

4.0 Conclusions

The 2008 Five Percent Report uses a methodology considerably improved when compared to the 2007 report. This year, we used the GIS methods to their full extent. Modifying the interchange representation helped in correctly assigning crashes for the interchanges. The screening of all local road segments and intersections was another major improvement. Use of the classification tree technique allowed the vast network to be classified and screened. The demographic and land-use characteristics served as substitutes for missing AADT. The safety performance functions for state roads were estimated with new 2008 crash data.

The last important improvement is updating the Indiana average crash costs for various types of locations consistent with the screening method. This update has allowed more accurate estimation of economic losses caused by crashes at screening locations.

As mentioned in the Introduction, multiple factors contribute to crash events, and for that reason, different countermeasures to reduce crash risk may be appropriate at different locations. For example, in some cases police enforcement is the most effective measure, while in others road engineering methods, such as road geometry or traffic control improvements, are most advisable. At other locations yet another combination of these treatments works best.

The methodology used in selecting Indiana's five percent locations is based on research conducted at Purdue University. The research report is available upon request.

5.0 Contact Person

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Appendix A

Five Percent Report Lists

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2008 5% State Road Segments

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Location	Length	City / Town	County	District	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Index of Crash Loss (I)
SR 930 (Coliseum Blvd) from 0.96 mi to 1.13 mi E of US 27	0.17	Fort Wayne	Allen	Fort Wayne	0	2	6	30	8	0	3	3.70
I-65 from 5.03 mi to 4.42 mi S of I-265	0.61	Jeffersonville	Clark	Seymour	1	2	24	175	27	1	3	5.24
I-65 within the 10 th St (Old SR 62) interchange between the on off ramps to I-65	0.24	Jeffersonville	Clark	Seymour	1	6	32	60	39	1	8	4.99
US 20 from 3.69 mi to 3.03 mi W of SR 15	0.66	E of Elkhart	Elkhart	Fort Wayne	2	1	18	131	21	2	2	3.44
US 33 from 2.13 mi to 2.34 mi SE of SR 15	0.21	SE of Goshen	Elkhart	Fort Wayne	0	2	7	16	9	0	2	3.29
I-265 / State St Interchange on State Street between the on off ramps to and from I-265	0.26	New Albany	Floyd	Seymour	0	2	22	100	24	0	2	5.53
I-69 from 4.13 mi to 5.17 mi N of I-465	1.04	NE of Indianapolis	Hamilton	Greenfield	1	2	43	191	46	1	2	4.06
I-65 from 3.65 mi to 3.19 mi S of US 50	0.46	S of Seymour	Jackson	Seymour	1	1	9	21	11	1	1	3.23
I-65 from 4.58 mi to 4.04 mi S of SR 10	0.54	NNW of Rensselaer	Jasper	LaPorte	1	3	4	24	8	1	3	2.76
US 30 from 1.71 miles to 1.46 miles W of SR 55	0.27	Schererville	Lake	LaPorte	0	3	36	127	39	0	3	7.86
SR 912 from 0.65 mi to 0.52 mi W of US 12	0.13	East Chicago	Lake	LaPorte	1	3	10	35	14	1	3	4.07
US 41 from 0.72 mi to 0.48 mi N of I-90 (Toll Rd)	0.24	Hammond	Lake	LaPorte	1	1	10	34	12	1	1	3.92
I-80/94 from 1.2 mi to 0.67 mi E of SR 53 (Broadway St)	0.53	Gary	Lake	LaPorte	0	3	17	123	20	0	4	3.89
I-80/94 from .60 to .89 mi E of SR 912	0.29	Gary	Lake	LaPorte	0	3	9	67	12	0	3	3.58

	SR 912 from 2.1 mi to 2.7 mi N of I-80/94	0.55	Hammond	Lake	LaPorte	2	3	27	84	32	2	4	3.26
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Page 1 of 2 2008 5% State Road Segments

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Location	Length	City / Town	County	District	No. Fatal Crashes (FTC)	No. Incapacitating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Index of Crash Loss (I)
I-80 from 2.08 mi to 0.97 mi W of Indianapolis Blvd (SR 152)	1.11	Hammond	Lake	LaPorte	1	3	29	271	33	2	3	3.25
US 30/Lincoln Hwy from 1.38 mi to 1.62 mi E of US 41	0.24	Schererville	Lake	LaPorte	0	2	8	14	10	0	2	2.85
I-465 (East Leg) from 1.10 mi to 1.33 mi N of I-70	0.23	Indianapolis	Marion	Greenfield	0	3	17	68	20	0	3	4.59
I-70 from 4.32 mi to 4.06 mi W of I-465 (East Leg)	0.26	Indianapolis	Marion	Greenfield	0	3	12	63	15	0	3	3.81
I-65 from 0.84 to 0.75 mi W of I-65/I-70 N Jct (N Split)	0.09	Indianapolis	Marion	Greenfield	0	2	4	52	6	0	2	2.99
SR 130 from US 30 N 0.43 miles	0.43	Valparaiso	Porter	LaPorte	0	2	24	73	26	0	2	6.37
US 6 from 3.06 mi to 2.86 mi W of SR 149 I-80/90 from 1.00 mi to	0.20	Portage	Porter	LaPorte	0	4	15	30	19	0	5	5.11
1.27 mi E of SR 51 (Ripley Street)	0.27	Portage	Porter	LaPorte	1	2	4	31	7	1	2	3.02

2008 5% State Road Intersections

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Location SR 930 (W Coliseum	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
Blvd) at Goshen Road, 0.42 mi SE of I-69	Fort Wayne	Allen	Fort Wayne	0	3	15	72	18	0	4	4.16
SR 930 (Coliseum Blvd) at Coldwater Road, 0.72 mi E of US 27	Fort Wayne	Allen	Fort Wayne	0	2	33	144	35	0	2	3.91
SR 37 (Maysville Road) at SR 101, 10.13 mi NE of I-469	NE of Fort Wayne	Allen	Fort Wayne	2	2	4	10	8	2	3	2.85
US 31 (N National Road) at 25th Street, 7.70 mi SE of I-65	Columbus	Bartholomew	Seymour	0	3	18	45	21	0	3	3.59
SR 46 at W Old Nashville Road, 2.80 mi W of I-65	W of Columbus	Bartholomew	Seymour	1	1	5	15	7	1	4	2.99
SR 8 at Grandstaff Drive, 0.53 mi E of I-69	Auburn	DeKalb	Fort Wayne	0	2	12	86	14	0	3	3.73
SR 120 (E Jackson Blvd) at CR 17 (6 Span Road), 1.91 mi S of I-80/90 (Toll Road)	E of Elkhart	Elkhart	Fort Wayne	0	2	8	41	10	0	3	4.29
SR 19 (Cassopolis Street) at SR 19 (Bristol Street), 1.97 mi S of I-90 (Toll Rd)	Elkhart	Elkhart	Fort Wayne	1	1	20	113	22	1	1	3.89
US 6 (Grand Army of the Republic Hwy) at CR 29, 3.79 mi E of SR 15 (N Higbee St)	N of Syracuse	Elkhart	Fort Wayne	1	1	6	16	8	1	2	2.89

Page 1 of 8 2008 5% State Road Intersections

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Location	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
US 33 / SR 15 (Main St) at SR 4 (Lincoln Avenue)	Goshen	Elkhart	Fort Wayne	0	3	9	46	12	0	3	2.69
SR 1 (N Park Road) at W 24th Street, 1.80 mi N of SR 44 (E 5th Street)	Connersville	Fayette	Greenfield	1	2	13	20	16	1	3	2.90
US 421 (N Michigan Road) at W 96th St, 0.18 mi NW of I-465	Indianapolis	Hamilton	Greenfield	0	3	27	99	30	0	3	6.76
US 31 (Meridian Street) at Greyhound Pass, 5.99 mi N of I-465	Westfield	Hamilton	Greenfield	0	3	25	89	28	0	3	3.80
US 31(Meridian Street) at Meridian Corners Blvd, 2.86 mi N of I-465	Carmel	Hamilton	Greenfield	0	2	7	29	9	0	2	3.70
SR 37 at E 146th Street, 2.65 mi N of I-69	Noblesville	Hamilton	Greenfield	0	3	22	111	25	0	3	3.52
SR 19 (Cicero Road) at E 206th St, 2.95 mi N of SR 32 / SR 38	Noblesville	Hamilton	Greenfield	1	2	5	16	8	1	2	2.88
US 40 (E Main Street) at N CR 600 E, 4.28 mi mi E of SR 9	E of Greenfield	Hancock	Greenfield	1	2	13	31	16	1	2	4.31
US 40 (E Washington Street) at S CR 500E, 3.28 mi E of SR 9 (State Street)	Greenfield	Hancock	Greenfield	1	2	14	26	17	1	2	4.24
SR 135 (Greene Street) at Jarboe St. NE, 0.32 mi N of US 150 (Main Street)	Palmyra	Harrison	Seymour	0	2	3	63	5	0	2	4.91

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Location	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
US 36 (Rockville Road)	Í	Í			,	,	,	, ,		, ,	
at N Raceway Road, 3.19 mi W of I-465	Avon	Hendricks	Crawfordsville	0	2	33	116	35	0	3	4.99
SR 3 (N Memorial Dr) at E CR 300N, 2.04 mi S of US 36	N of New Castle	Henry	Greenfield	0	2	6	19	8	0	2	3.35
US 50 (Tipton Street) at Community Drive, 3.22 mi W of I-65	Seymour	Jackson	Seymour	0	3	9	16	12	0	3	3.78
SR 62 (Clifty Drive) at Michigan Road, 1.13 mi W of US 421	Madison	Jefferson	Seymour	0	2	7	82	9	0	2	5.47
US 31 at Village Lane, 7.30 mi S of I-465 (S Leg)	Greenwood	Johnson	Seymour	0	3	18	32	21	0	3	4.00
US 41(Indianapolis Blvd) at Old Lincoln Hwy, 0.10 mi S of US 30 (N Lincoln Hwy)	Schererville	Lake	LaPorte	0	2	12	76	14	0	2	5.73
SR 53 (Broadway Street) at E North Street (E 109 th Ave), 1.34 mi N of US 231	Crown Point	Lake	LaPorte	1	2	13	39	16	1	3	4.01
SR 312 (Chicago Avenue) at US 20 (Indianapolis Blvd), 0.88 mi E of I-90 (Toll Rd)	East Chicago	Lake	LaPorte	0	3	12	81	15	0	3	3.73

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Location US 41 (Calumet Avenue) at 119th Street, 0.60 mi S of US 12 (Indianapolis Blvd)	City / Town Hammond	County Lake	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
US 30 (Joliet Street) at Great Lakes Drive, 1.61 mi W of US 41 (Indianapolis Blvd)	Dyer	Lake	LaPorte	0	2	11	35	13	0	2	3.38
US 30 (W Lincoln Hwy) at Grant Street, 1.63 mi W of I-65	Merrillville	Lake	LaPorte	0	2	11	55	13	0	2	3.05
US 41 (Indianapolis Blvd) at 45th Street, 2.68 mi S of I-80/94 SR 51 (Ripley Street) at	Highland	Lake	LaPorte	0	2	24	90	26	0	2	2.97
US 20 (Melton Road), 0.15 mi N of I-90 (Toll Road)	Gary	Lake	LaPorte	0	2	3	30	5	0	3	2.94
US 421 (N Flynn Rd) at SR 2, (S jct) 3.02mi S of I-80/I-90 (Toll Road)	Westville	LaPorte	LaPorte	0	2	9	26	11	0	2	4.03
US 421 (Franklin Street) at Village Road, 0.53 mi S of US 20	Michigan City	LaPorte	LaPorte	0	2	7	35	9	0	3	3.69
US 35 (Indiana Avenue) at Boyd Blvd, 2.18 mi S of SR 2 (Lincolnway)	LaPorte	LaPorte	LaPorte	0	2	6	17	8	0	2	3.59
US 421 (Franklin Street) at US 20, 1.53 N of I-94	Michigan City	LaPorte	LaPorte	1	2	17	97	20	1	2	3.46

US 421 (Franklin Street) at W Kieffer Road, 0.53											
mi N of I-94	Michigan City	LaPorte	LaPorte	0	4	15	44	19	0	4	3.36

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			2008 5% S	tate Road	ntersections						
Location	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
SR 9 (Scatterfield Road) at SR 236 (E 53rd Street), 0.59 mi N of I-69	Anderson	Madison	Greenfield	0	2	30	125	32	0	2	2.93
US 40 (W Washington Street) at S Raceway Road, 3.53 mi SW of I- 465 (West Leg)	Indianapolis	Marion	Greenfield	0	2	22	61	24	0	2	4.28
US 40 (E Washington St) at Mitthoeffer Road, 2.13 mi E of I-465 (E Leg)	Indianapolis	Marion	Greenfield	0	2	38	109	40	0	2	4.25
US 52 (Brookville Rd) at Franklin Rd, 0.41 mi NE of I-465 (E Leg)	Indianapolis	Marion	Greenfield	0	2	23	54	25	0	3	3.63
US 36 (Pendleton Pike) at N Post Road, 1.60 mi NE of I-465 (E Leg)	Lawrence	Marion	Greenfield	0	2	23	62	25	0	3	2.80
US 31 (S East Street) at E Thompson Road, 0.40 mi S of I-465 (S Leg)	Indianapolis	Marion	Greenfield	0	5	33	101	38	0	5	2.77
SR 67 (Kentucky Ave) at Norcroft Dr, 0.31 mi SW of I-465 (W Leg) SR 37 (Ruel Steele	Indianapolis	Marion	Greenfield	0	2	12	34	14	0	2	2.74
Memorial Hwy) at SR 48 (3rd Street), 1.89 mi S of SR 46	Bloomington	Monroe	Seymour	0	2	28	49	30	0	2	3.62
SR 45 at S Leonard Springs Rd/S Curry Pike, 0.64 mi SW of SR 37	Bloomington	Monroe	Seymour	0	2	15	55	17	0	4	3.22

US 231 at entrance to												
North Montgomery Hig	n N of									l		
School, 3.11 N of I-74	Crawfordsville	Montgomery	Crawfordsville	1	2	7	22	10	1	2	3.77	İ

Page 5 of 8 2008 5% State Road Intersections

		T	2000 3 /8 3	late Noau	ntersections	1	1	ı		ı	,
Location	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
SR 66 at Hospital Rd, 2.60 mi S of SR 37	Tell City	Perry	Vincennes	0	2	7	8	9	0	2	2.91
US 6 at N Calumet Ave, 0.49 mi E of SR 49	Valparaiso	Porter	LaPorte	1	3	22	49	26	1	5	6.07
US 30 (E Lincoln Hwy) at CR N475W, 8.61 mi E of I-65	W of Valparaiso	Porter	LaPorte	1	2	13	43	16	1	2	4.94
US 20 at Waverly Road, 0.48 mi SW of SR 49	Chesterton	Porter	LaPorte	0	5	21	21	26	0	8	4.11
US 6 (Windsor Trail) at CR 400 W (McCool Road), 0.99 mi W of SR 149	Portage	Porter	LaPorte	0	2	23	45	25	0	2	3.87
SR 49 at Indiana Boundary Road, 0.57 mi S of I-94	Chesterton	Porter	LaPorte	1	1	19	63	21	1	1	3.13
US 20 (Melton Road) at Samuelson Road1.04 mi E of SR 249	Portage	Porter	LaPorte	0	3	3	13	6	0	3	2.92
US 50 at SR 129 (E Jct)	E of Versailles	Ripley	Seymour	0	3	6	10	9	0	3	2.71
SR 56 (W McClain Avenue) at Oak Drive, 0.34 mi E of I-65	Scottsburg	Scott	Seymour	0	2	13	16	15	0	2	3.49
SR 3 / SR 56 at S Napper Road, 6.28 mi E of I-65	E of Scottsburg	Scott	Seymour	0	2	9	7	11	0	2	3.48

Page 6 of 8 2008 5% State Road Intersections

		I	2006 5% 5	iale Road	ntersections	1	ı	ı	ı	1	1
Location	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapaci- tating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
SR 56 (W McClain Ave) at S Boatman Rd, 1.37 mi W of I-65	Scottsburg	Scott	Seymour	0	5	7	5	12	0	8	3.03
SR 9 (N Harrison Street) at W Washington Street,(Public Square) 0.10 mi N of SR 44 (E Broadway Street) N Jct	Shelbyville	Shelby	Greenfield	0	2	3	26	5	0	2	2.91
US 35 / SR 8 (N Heston St) at CR 25 N, 1.01mi S of US 35 / SR 8 (N Jct)	Knox	Starke	LaPorte	1	1	9	36	11	1	1	4.34
SR 26 (S St) at S 4th St, 0.71 mi SE of US 231 (S River Road)	Lafayette	Tippecanoe	Crawfordsville	1	1	29	84	31	1	1	5.41
US 52 / US 231 at CR 500 W, 1.66 mi E of US 231 W Jct	NW of West Lafayette	Tippecanoe	Crawfordsville	0	2	12	77	14	0	2	5.28
SR 25 / 38 at S Creasy Lane, 2.57 mi W of I-65	Lafayette	Tippecanoe	Crawfordsville	0	2	15	59	17	0	2	4.68
SR 43 at E CR 500N, 0.73 mi S of I-65	N of Lafayette	Tippecanoe	Crawfordsville	0	3	5	36	8	0	3	3.96
SR 26 (South Street) at N 9th Street, 1.51 mi W of US 52 (Sagamore Pkwy)	Lafayette	Tippecanoe	Crawfordsville	0	2	10	58	12	0	2	3.94
SR 26 (W State Street) at Newman Rd, 1.97 mi W of SR 43 (N River Rd)	Lafayette	Tippecanoe	Crawfordsville	0	2	6	21	8	0	2	3.49

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			2000 3 /6 3	iale Noau i	ntersections						
Location	City / Town	County	DISTRICT	No. Fatal Crashes (FTC)	No. Incapacitating Injury Crashes (IINC)	No. Non- Incapaci- tating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Crash Loss Index (I)
US 52 / US 231(W Sagamore Pkwy) at Cumberland Ave, 0.49 mi NW of US 231 / US 52 E Jct	NW of West Lafayette	Tippecanoe	Crawfordsville	0	2	19	72	21	0	2	3.59
US 41 at Lynch Road, 2.54 mi S of SR 57	Evansville	Vanderburgh	Vincennes	2	1	25	40	28	2	2	4.59
SR 57 at E Boonville New Harmony Road, 1.15 W of I-164	N of Evansville	Vanderburgh	Vincennes	3	0	9	8	12	3	3	3.40
US 41(Dixie Bee Rd) at E Jessica Drive, 4.30 mi S of I-70	Terre Haute	Vigo	Crawfordsville	0	2	17	65	19	0	5	5.94
SR 1 (N Main Street) at SR 124, S. Jct	Bluffton	Wells	Fort Wayne	0	2	8	36	10	0	3	3.97
SR 1 at E SR 218	Reiffsburg	Wells	Fort Wayne	1	1	6	9	8	2	1	2.87

		20	108 5% LOC	al Road Se	egments					
	County	LENGTH	No. Fatal Crashes	No. Incapa- citating Injury Crashes	No. Non- Incapa- citating Injury Crashes	No. Property- Damage- Only Crashes	No. Fatal and Injury Crashes	No. Persons Killed	No. Persons Seriously Injured	Probability of Significance
Location	(CO)	(miles)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Minnich Road from Maples Road North 0.49 miles SE of Fort Wayne	Allen	0.49	0	2	0	0	2	0	2	0.00000
DuPont Road from 0.26 miles West of and then East to Pine Mills Rd / Plaza Parkway North of FortWayne	Allen	0.26	1	1	0	12	2	1	1	0.00001
Paulding Road from 0.49 miles from Decatur Rd East to Smith Street	Allen	0.27	0	2	1	1	3	0	2	0.00285
Maples Road from 0.49 miles West of then to the traffic circle at Wayne Trace, Adams Center Rd. and Marion Center Rd SE of FortWayne W CR 450N from I-65 (no access) east 0.39 miles (0.39 miles west of N CR 150W)	Allen	0.49	0	2	1	4	3	0	2	0.00435
S CR 200E from E CR 650S North 0.49 miles to E CR 600N 4.6 miles west of US 35	Cass	0.49	0	2	0	0	2	0	3	0.00079
S CR 880W from 0.52 miles South of W CR 450S to W CR 450S .30 Miles east of US 52	Clinton	0.52	0	2	0	0	2	0	2	0.00108
North Wheeling Pike/Ave from W CR 750N north 0.55 miles to W CR 800N 1.7 miles N of SR 28	Delaware	0.55	1	1	1	1	3	1	1	0.00020
CR 12 (Edison Rd) from West Junction with CR 1 east 0.26 miles to the East Junction with CR 1 0.50 miles North of Old US 20	Elkhart	0.26	1	1	0	1	2	1	1	0.00001
Alonzo Smith Rd from Coachwood Drove N 0.45 mi to John Pectol Road 1.0 mi SSW of Galena	Floyd	0.45	11	1	0	1	2	1	2	0.00011

		20	108 5% LOC	ai Nuau Se	ginenis					
					No.					
				No.	Non-	No.	No.		NI-	
			No	Incapa-	Incapa-	Property-	Fatal	No	No. Persons	Drobobility
			No. Fatal	citating Injury	citating Injury	Damage- Only	and Injury	No. Persons	Seriously	Probability of
	County	LENGTH	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
Location	(CO)	(miles)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
North Fortville Pike Road From 0.23 miles South, then to the bridge over I-							, ,			, ,
70 northwest of Greenfield	Hancock	0.23	0	2	0	0	2	0	2	0.00816
Fischer Street from LaFountain to Apperson Way approximately 0.60 miles West of US 31 / US 35	Howard	0.17	0	2	1	5	3	0	2	0.00100
Redding Road (CR 925) from the		0								0.00.00
bridge over I-65 NE 0.34 miles approximately 2.13 miles SE of SR 11	Jackson	0.34	1	1	5	13	7	1	1	0.00002
- 1 - 1	odonoon	0.01				10		'		0.00002
E CR 700N N CR 750E east 0.43 mi, 7.4 miles west of I-74	Johnson	0.43	1	1	0	1	2	1	1	0.00019
								-		0.000.0
Main Street / Rocklane Road (CR950) from Franklin Road (N CR440E) East to N CR 525E, 2.95 miles east of I-65	Johnson	0.56	1	1	1	0	3	1	1	0.00034
Winfield Road from the intersection with Benton Street Southeast then East to Decatur Street approximately 2.15 miles east of I-65	Lake	0.20	0	2	0	2	2	0	2	0.00203
	Lano	0.20	0		0			0		0.00200
CR 200 N (Cross Street) from 0.92 miles west to 0.42 miles west of the bridge over I-69	Madison	0.50	0	2	2	9	4	0	2	0.00356
Country Club Road from Sunningdale Blvd (0.70 miles south) to 0.44 miles										
south of US 136 (Crawfordsville Road)	Marion	0.24	1	1	0	4	2	1	1	0.00000

			100 5 /6 LUC							
				No.	No. Non-	No.	No.			
				Incapa-	Incapa-	Property-	Fatal		No.	5 1 1 1111
			No. Fatal	citating Injury	citating Injury	Damage- Only	and Injury	No. Persons	Persons Seriously	Probability of
	County	LENGTH	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
Location	(CO)	(miles)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Crawfordsville Road from 0.70 miles southwest (at the intersection with Parkwood Dr / Cunningham Rd) to 0.91 miles southwest of the I-74 / I-465 interchange	Marion	0.20	1	1	5	22	7	1	2	0.00002
Warman Avenue from the from the I- 70 bridge over Warman avenue south 0.5 miles approximately 1.03 miles west of Holt Road interchange	Marion	0.05	2	0	0	3	2	2	0	0.00009
Post road from eastbound on/off		0.00	_				_	_		3.3333
ramps north to the westbound on/off ramps of I-70	Marion	0.29	1	2	7	30	10	1	4	0.00021
Sunnyside Road from 1.73 miles north of US 36 / SR 67 north to east 75th Street.	Marion	0.29	0	3	9	26	12	0	4	0.00039
Michigan road from 2.06 miles south of I-465 (N Leg) north to 79th Street	Marion	0.11	0	2	1	2	3	0	2	0.00087
21st Street from the 21st Street bridge over I-465 (W Leg) east to N High School Rd	Marion	0.23	0	3	7	31	10	0	3	0.00199
56th Street form the 56th Street bridge over I-465 (E Leg) to Caito Drive	Marion	0.30	0	3	12	40	15	0	3	0.00221
Meridian Street in Indianapolis from 10th Street to 11 th Street	Marion	0.08	0	2	14	34	16	0	2	0.00245
Girls School Road from Walton Street to US 36	Marion	0.11	0	2	0	6	2	0	2	0.00297
38th Street from the bridge over I-465 (E Leg) to Franklin Road	Marion	0.27	0	6	11	59	17	0	6	0.00407

	1	20	108 5% LOC	ai Noau Se						
				No. Incapa-	No. Non- Incapa-	No. Property-	No. Fatal		No.	
	County	LENGTH	No. Fatal Crashes	citating Injury Crashes	citating Injury Crashes	Damage- Only Crashes	and Injury Crashes	No. Persons Killed	Persons Seriously Injured	Probability of Significance
Location	(CO)	(miles)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Fir Road from 3.76 miles (.5 miles north of 8th Road) north to 4.31 miles north of US 30 (7th Road) approximately 2.0 miles west of SR 331 NW of Bourbon	Marshall	0.49	0	2	1	0	3	0	2	0.00028
Sparta Lake Road from 1.30 miles south to 0.72 miles south (W CR 400N) of US 33 NW of Kimmell	Noble	0.56	1	1	1	1	3	1	1	0.00001
County Line Road from 61st Avenue (1.27 miles South of SR 130) to 0.97 miles south of SR 130	Porter	0.30	0	2	0	1	2	0	2	0.00337
Willow Creek Road from the intersection at Evergreen / Canden Street (0.17 miles south of the bridge over I-80/90) north to McCasland Avenue	Porter	0.30	0	2	10	19	12	0	2	0.00416
Erie Canal Road / Wolf Road from .35 miles north of Springhill Drive (1.02 miles south of the bridge over I-70) north to 0.79 miles south of the bridge over I-70 in Terre Haute	Vigo	0.23	1	1	0	1	2	1	1	0.00001
Blue Star Highway from 0.5 miles east of the west junction with US 24 east 0.73 miles west of Lagro	Wabash	0.27	0	2	1	4	3	0	2	0.00071
Vann Road from 2.00 miles to 2.58 miles east of SR 261	Warrick	0.55	0	2	0	7	2	0	2	0.00254

Location	County (CO)	No. Fatal Crashes (FTC)	No. Incapa- citating Injury Crashes (IINC)	No. Non- Incapa- citating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Probability of Significance (P)
Intersection of Minnich Rd at E. Tillman Rd (~1.3 miles E of I-469) SE of Fort Wayne	Allen	3	0	4	14	7	3	1	0.0002
Intersection of St. Joe Center Rd at Maplecrest Rd (~1.70 miles) in Fort Wayne	Allen	0	2	15	43	17	0	3	0.0012
Intersection of E. State Blvd at Beacon St (~0.8 mile W of SR 930 in Fort Wayne	Allen	0	3	10	24	13	0	4	0.0039
Intersection of Rothman Rd at Maplecrest Rd (~0.7 mile S of I-469) in Fort Wayne	Allen	0	2	8	22	10	0	4	0.0050
Intersection of Trier Rd at Maplecrest Rd (~2 .25 miles E of SR 930 in Fort Wayne	Allen	0	3	3	14	6	0	5	0.0139
Intersection of Illinois Road at Getz Road (~ 0.47 miles E of I-69) in Fort Wayne	Allen	0	2	13	48	15	0	2	0.0196
Intersection of E Market St at Pennsylvania Av (~1.75 miles N of US 24) in Logansport	Cass	0	2	11	67	13	0	3	0.0023
Intersection of 10th St at Spring St (~0.2 mile east of I-65) in Jerrersonville	Clark	0	2	18	57	20	0	3	0.0078
Intersection of McCellan Rd at Memphis- Bluelick Rd (~0.84 mi NW of I-65) NW of Memphis	Clark	1	1	1	4	3	1	1	0.0086
Intersection of E CR 900S at County Line Road (~ 0.24 miles N of I-65) At the Clinton Tippecanoe County Line	Clinton	1	1	0	3	2	1	1	0.0219
Intersection of W Riverside Av at N Tillotson Av (~1.2 miles N of SR 32) in Muncie	Delaware	0	2	7	50	9	0	2	0.0069

		2000 0 70 1	_UCAI IIILEIS	occitorio e					
			No.	No. Non-	No.	No.			
			Incapa-	Incapa-	Property-	Fatal		No.	
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
		Fatal	Injury	Injury	Only	Injury	Persons	Seriously	of
	County	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of E Bristol St at 6 Span Rd									
(~0.4 mile N of SR 120) E of Elkhart	Elkhart	0	2	15	92	17	0	2	0.0001
Intersection of CR 38 (E Kercher Rd) at CR									
33 (~1.7 miles E of US 33) SE of Goshen	Elkhart	1	1	1	11	3	2	1	0.0004
Intersection of W Jackson Blvd at S Main St									
(~1 mile S of SR 19) in Elkhart	Elkhart	1	1	16	71	18	1	1	0.0005
Intersection of CR 36 (New Rd) at CR 11									
(~4.5 miles SW of US 33) WSW of Goshen	Elkhart	1	1	6	3	8	1	2	0.0067
Intersection of CR 6 at Ada Rd (~0.4 mile S									
of I-80) NE of Elkhart	Elkhart	1	1	0	2	2	1	3	0.0074
Intersection of CR 146 at CR 23 (Main St)									
(~0.2 mile E of SR 15) near New Paris	Elkhart	1	1	1	15	3	1	1	0.0093
Intersection of Fieldhouse Av at 9th St & 7th									
St (~1.7 miles E of SR 19 in Elkhart)	Elkhart	1	2	3	4	6	1	2	0.0182
Intersection of Spring St at Silver ST (~1/2									
mile NE of SR 111 in New Albany	Floyd	0	2	10	31	12	0	2	0.0124
Intersection of St. Peters Rd, Chappelow	-								
Ridge Rd at Gobblers Knob Rd (~1 mile E of									
SR 1) W of New Trenton	Franklin	2	0	0	1	2	2	0	0.0081
Intersection of South St at Commercial Dr									
(~0.2 mile W of I-69) in Fishers	Hamilton	0	2	13	95	15	0	2	0.0002
-			•	•	•	•	•		

		2000 5 /0 1	Local Inters	ections					
				No.					
			No.	Non-	No.	No.			
			Incapa-	Incapa-	Property-	Fatal		No.	
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
		Fatal	Injury	Injury	Only	Injury	Persons	Seriously	of
	County	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of 116th St at Cumberland Rd									
(~0.7 mile E of I-69) in Fishers	Hamilton	0	2	11	74	13	0	2	0.0023
Intersection of E 131st St at Penneagle Dr							_	_	
(~4.75 miles E of US 31) E side of Carmel	Hamilton	0	2	12	24	14	0	2	0.0038
Intersection of 146th St at Gray Rd (~2.1									
miles E of US 31 W side of Carmel	Hamilton	0	2	3	43	5	0	2	0.0091
Intersection of W New Rd (W CR 200N) at N									
Fortville Pike (~0.5 mile S of I-70) NW of									
Greenfield	Hancock	0	2	17	30	19	0	3	0.0056
Intersection of Stafford Rd at Perry Rd (~0.9									
mile E of SR 267) E of Plainfield	Hendricks	1	1	16	79	18	1	2	0.0019
Intersection of Maplehurst Dr and									
Commerce Drive (~ 0.06 miles W of SR									
267) near Brownsburg	Hendricks	0	2	8	36	10	0	2	0.0051
Intersection of Muirfield Dr at Brittany Circle									
(~250' N of I-70 W of SR 267) at									
Brownsburg	Hendricks	1	1	5	17	7	1	1	0.0096
Intersection of West Blvd at S Wabash Ave									
(~1.75 miles W of US 31) in Kokomo	Howard	2	0	2	15	4	3	0	0.0030
Intersection of Lincoln Rd at S Washington									
St (~0.9 mile W of US 31) in Kokomo	Howard	0	2	13	39	15	0	2	0.0060
Intersection of Smith Rd at N Apperson Way						-	-		
(~0.3 mile W of US 31) in Kokomo	Howard	0	3	6	26	9	0	3	0.0130
Intersection of E CR 1000S at S CR 700E									
(~0.9 mile N of SR 14) W of South Whitley	Kosciusko	1	1	0	2	2	1	4	0.0014
Intersection of !09th St at Randolph St									
(~4.25 miles E of I-65) in SE Merrillville	Lake	0	2	11	84	13	0	2	0.0002
	•		-		•				

		2000 370 1	Local inters						
Location	County	No. Fatal Crashes	No. Incapa- citating Injury Crashes	No. Non- Incapa- citating Injury Crashes	No. Property- Damage- Only Crashes	No. Fatal and Injury Crashes	No. Persons Killed	No. Persons Seriously Injured	Probability of Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of S Lake St at Miller Av (~0.15 mile N of US 12) in Gary	Lake	2	0	0	16	2	2	0	0.0005
Intersection of Sibley Blvd at S State Line Av (~.075 mile W of US 41) in Gary	Lake	0	2	5	56	7	0	2	0.0017
Intersection of 77th Av, Sheffield Av at Hart St (~1.0 mile S of US 30) in Dyer	Lake	1	1	3	16	5	1	1	0.0055
Intersection of Broadmoor Av at Calumet Av (~0.50 mile S of I-80/94) in Highland	Lake	0	2	8	59	10	0	2	0.0056
Intersection of W 61st Av at Arizona St (~1.75 miles E of I-65) in Hobart	Lake	0	2	5	4	7	0	3	0.0107
Intersection of W Glen Park Av at N Broad St (~2.25 miles E of US 41) Highland	Lake	0	2	14	29	16	0	2	0.0110
Intersection of 169th St at Arizona Av (~1 mile N of I-80/94) in Hammond	Lake	0	2	5	21	7	0	2	0.0119
Intersection of 165th St at Kennedy Av (~1 mile S of US 20) in Hammond	Lake	0	2	6	26	8	0	4	0.0172
Intersection of 176th PI at Tapper Av (~.010 mile N of I-80/94) in Hammond	Lake	0	2	5	16	7	0	2	0.0183
Intersection of Sibley Boulevard at Hohman Avenue (~ 0.72 miles W of US 41) in Hammond	Lake	0	2	6	36	8	0	2	0.0198
Intersection of W CR 200N at Country Ln (~2.0 miles E of US 421) SE of Michigan City	LaPorte	0	2	6	6	8	0	2	0.0176
Intersection of E CR 1150N at N CR 100E (~0.50 mile S of SR 28) E of Alexandria	Madison	1	1	0	0	2	2	2	0.0009
Intersection of E 53rd St at Columbus Av (~0.75 mile W of SR 9) S Anderson	Madison	0	2	14	61	16	0	4	0.0053
Intersection of E 38th St at Columbus Av (~ 0.75 mile W of SR 9) in Anderson	Madison	1	1	19	35	21	1	1	0.0058

			Local inters						
				No.					
			No.	Non-	No.	No.		N. 1.	
Lagation		NIS	Incapa-	Incapa-	Property-	Fatal	NI-	No.	Deale als ilite
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
	Country	Fatal	Injury	Injury	Only	Injury Crashes	Persons	Seriously	of Cignificance
	County (CO)	Crashes (FTC)	Crashes (IINC)	Crashes (NINC)	Crashes (PDC)	(IFC)	Killed (FTP)	Injured (IINP)	Significance (P)
Intersection of W 25th ST at Meridian St	(00)	(FTC)	(IIIVC)	(MINC)	(PDC)	(IFC)	(FIF)	(IIIVE)	(P)
	NA - P				40	,			0.0000
(~0.75 mile S of SR 32) in Anderson	Madison	2	0	2	10	4	2	0	0.0089
Intersection of Guion Road at East 38th									
Street (~ 0.52 miles W of the Kessler street									
bridge over I-65 and 38th street) in Indianapolis	Marion	0	3	13	65	16	0	3	0.0001
Intersection of Michigan Road at Cold	ivianion	0	3	13	65	10	0	3	0.0001
Spring Road (~ 2.0 miles NW of I-65) in									
Indianapolis	Marion	2	1	5	10	8	3	2	0.0002
Intersection of Shadeland Avenue at 30th	IVIATION		I	3	10	0	3		0.0002
Street (~ 0.87 miles N of I-70) in									
Indianapolis	Marion	0	4	23	63	27	0	4	0.0003
Intersection of Lynhurst Drive at Springsong	Wanon		7	20	00				0.0000
Drive (~ 0.39 miles S of I-70) in Indianapolis	Marion	1	3	4	18	8	2	3	0.0003
Intersection of S Belmont Avenue at E	IVIATION	<u> </u>	3	4	10	0		3	0.0003
Washington Street(~ 0.70 miles N of I-70) in									
Indianapolis	Marion	1	1	9	35	11	2	2	0.0003
Intersection of 37th Street at College	Widitori				00			_	0.0000
Avenue(~ 3.0 miles E of I-65) in									
Indianapolis	Marion	0	2	19	64	21	0	2	0.0004
Intersection of Westfield at 86th Street (~									010001
1.0 miles S of I-465 N Leg) in Indianapolis	Marion	0	2	18	96	20	0	2	0.0004
Intersection of Rural Street at Pearl Street (WIGHTON	"		10	30	20			0.0004
~ 2.04 miles S of I-70) in Indianapolis	Marion	0	2	18	39	20	0	4	0.0008
·	IVIATION	0		10	39	20	U	4	0.0008
Intersection of 16th Street at Illinois Street (_		0.0000
~ 0.41 miles E of I-65) in Indianapolis	Marion	0	2	11	54	13	0	3	0.0008
Intersection of Holt Road at Morris Street (~									
0.17 miles S of I-70) in Indianapolis	Marion	0	2	25	52	27	0	3	0.0008

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			No.	No. Non-	No.	No.			
			Incapa-	Incapa-	Property-	Fatal		No.	
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
Location		Fatal					_		of
	Carrati		Injury	Injury	Only	Injury	Persons	Seriously	•
	County	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of Holt Road at West									
Washington Street (~ 0.56 miles N of I-70)		_							
in Indianapolis	Marion	0	2	18	80	20	0	2	0.0012
Intersection of Wilson Road at Traders Lane									
(~0.22 miles W of I-65) in Indianapolis	Marion	1	1	4	13	6	1	2	0.0013
Intersection of Southport Road at Gray Road									
(~ 0.38 miles W of I-65) in Indianapolis	Marion	0	2	6	37	8	0	3	0.0016
Intersection of W Southport Road at Mann	Manon	0		0	31	0	0	<u> </u>	0.0010
Road (~ 2.65 miles W of SR 37) in									
,	Marion	0	3	15	1.1	10		,	0.0010
Indianapolis	Marion	0	3	15	14	18	0	4	0.0019
Intersection of E Southport Road at Madison									
Avenue (~ 1.07 miles E of US 31) in							_		
Indianapolis	Marion	1	3	9	42	13	1	4	0.0020
Intersection of N Tibbs Avenue at W									
Washington Avenue(~ 0.70 miles N of I-70)									
in Indianapolis	Marion	1	1	11	33	13	1	1	0.0022
Intersection of Martin Luther King Jr Street									
at W 38th Street(~ 0.95 miles N of I-65) in									
Indianapolis	Marion	0	2	26	84	28	0	2	0.0023
Intersection of E Washington Street at East									
Street (~ 0.33 miles W of I-65) in									
Indianapolis	Marion	0	3	17	42	20	0	4	0.0024
Intersection of N Post road at E 30th Street (3.0021
~ 0.74 miles N of I-70) in Indianapolis	Marion	1	1	16	46	18	1	2	0.0026
, .	Manon	l l	I I	10	46	10	I		0.0026
Intersection of N Keystone Avenue at 38th									
Street (~ 2.02 miles N of I-70) in	N 4 = = : = :=			40		40	_		0.0000
Indianapolis	Marion	0	3	16	57	19	0	3	0.0028
Intersection of N Post Road at 25th Street (
~ .22 miles N of I-70) in Indianapolis	Marion	0	2	26	53	28	0	2	0.0030
Intersection of W 38th Street at N Illinois				_			_		
Street (~ 2.35 miles E of I-65) in									
Indianapolis	Marion	0	3	14	50	17	0	4	0.0031
	-	<u> </u>							

-		2000 3 /6 1	_ocai inters	CUUIS	•	1	1	•	,
				No.					
			No.	Non-	No.	No.			
			Incapa-	Incapa-	Property-	Fatal		No.	
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
		Fatal	Injury	Injury	Only	Injury	Persons	Seriously	of
	County	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of Minnesota Street at S	()	(- /	\ -/	- /	\/	\ - /	, ,	,	` '
Lawndale Avenue(~ just E of I-465 S Leg)									
in Indianapolis	Marion	1	1	3	22	5	1	1	0.0033
Intersection of E Thompson Road at Pappas		-	-				-	-	0.000
Drive (~ 2.25 miles E of I-65) in Indianapolis	Marion	0	2	9	20	11	0	3	0.0000
Intersection of S East Street at Mills Road /	Marion	0		9	20	11	0	3	0.0038
Southern Plaza Drive (~ 0.38 miles N of I-	N 4 = = : = :=	0		4.4	00	40			0.0044
465 S Leg) in Indianapolis	Marion	0	2	14	28	16	0	4	0.0044
Intersection of W South Street at Sciota									
Drive (~ 0.75 miles W of I-65 / I-70) in									
Indianapolis	Marion	0	2	11	80	13	0	2	0.0053
Intersection of E Washington Street at									
Sadlier Drive (~ 0.37 miles W of I-465 E									
Leg) in Indianapolis	Marion	1	2	7	25	10	1	2	0.0053
Intersection of N Post road at 42nd Street (
~ 2.27 miles N of I-70) in Indianapolis	Marion	0	2	21	46	23	0	2	0.0056
Intersection of Mann Road at Epler Avenue (
~ 0.54 miles S of I-465 S Leg) in									
Indianapolis	Marion	1	1	4	4	6	1	4	0.0058
Intersection of Dandy Trail Road at W 38th									
Street (~0.44 miles N of I-74) in									
Indianapolis	Marion	0	3	2	14	5	0	4	0.0059
Intersection of E 38th Street and Franklin									2.2200
Road (~ 0.27 miles E of I-465 E Leg) in									
Indianapolis	Marion	0	2	16	42	18	0	3	0.0063
Intersection of E Market Street at East	Manon	†		10	72				0.0000
Street (~ 0.32 miles W of I-65 / I-70) in									
Indianapolis	Marion	0	2	15	43	17	0	2	0.0065
Παιαπαροπο	Manon			13	+3	17			0.0003

		2000 3 /0 1	Local inters	CUIUIIS					
Location	County (CO)	No. Fatal Crashes (FTC)	No. Incapa- citating Injury Crashes (IINC)	No. Non- Incapa- citating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Probability of Significance (P)
Intersection of W 56th Street at High School	(00)	(1.10)	(11140)	(141140)	(1 00)	(11 0)	(1 11)	(11141)	(1)
Road (~ 0.28 miles E of I-465 E Leg) in									
Indianapolis	Marion	0	2	6	26	8	0	3	0.0071
Intersection of W 38th Street at Lafayette									
Road (0.45 miles W of I-465 W Leg) in									
Indianapolis	Marion	2	1	20	114	23	4	2	0.0079
Intersection of W 56th Street at Lafayette									
Road (~ 0.09 miles E of I-65) in Indianapolis	Marion	0	3	14	69	17	0	3	0.0082
Intersection of W 10th Street at Martin									
Luther King Street (~ 0.24 miles SE of I-65)	N 4 a mi a m	0		4.4	00	40	0	0	0.0005
in Indianapolis	Marion	0	2	14	66	16	0	2	0.0085
Intersection of E 56th Street at Shadeland Avenue (~ 0.30 miles W of I-465 E Leg) in									
Indianapolis	Marion	0	2	11	29	13	0	3	0.0086
Intersection of Mann Road at Superior	Manon	0		11	23	10	0	<u> </u>	0.0000
Street (~ 0.55 miles N of I-465 S Leg) in									
Indianapolis	Marion	0	3	4	17	7	0	4	0.0088
Intersection of W 10th at Tibbs Avenue (~									
0.55 miles W of I-465 W Leg) in Indianapolis	Marion	0	2	22	58	24	0	3	0.0095
Intersection of N Emerson Avenue at 38th									
Street (~ 1.60 miles N of I-70) in									
Indianapolis	Marion	0	2	19	66	21	0	2	0.0103
Intersection of N Mitthoffer Road at 21st									
Street (~ 0.34 miles S of I-70) in	Marion	0	,	14	56	16	0	2	0.0115
Indianapolis	Manon	0	2	14	36	10	U	2	0.0115
Intersection of Fall Creek Parkway (Binford Avenue) at Evanston Avenue (~ 5.83 miles									
SW of I-465 N Leg) in Indianapolis	Marian		2	2	17	4	0	3	0.0119
Intersection of Lee Road at 63rd Street (~	Marion	0	2	2	17	4	U	3	0.0119
1.62 miles N of US 36 / SR 67 (Pendleton									
Pike) in Indianapolis	Marion	1	1	4	8	6	1	1	0.0130
,		1	·		·		·	· · · · · · · · · · · · · · · · · · ·	

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Location	County (CO)	No. Fatal Crashes (FTC)	No. Incapa- citating Injury Crashes (IINC)	No. Non- Incapa- citating Injury Crashes (NINC)	No. Property- Damage- Only Crashes (PDC)	No. Fatal and Injury Crashes (IFC)	No. Persons Killed (FTP)	No. Persons Seriously Injured (IINP)	Probability of Significance (P)
Intersection of Moller Road at Gateway	•								
Drive (~ 1.62 miles SW of I-65) in	Maria	_	,		00		,	_	0.0400
Indianapolis	Marion	1	1	6	20	8	1	1	0.0132
Intersection of E Raymond Avenue at Keystone Avenue (~ 0.87 miles E of I-65) in Indianapolis	Marion	0	2	18	33	20	0	2	0.0132
Intersection of W 34th Street at Moller Road (~ 1.04 miles E of I-465 W Leg) in Indianapolis	Marion	1	1	11	53	13	1	1	0.0139
Intersection of W 10th Street at Vinewood / Beachway Drive (~ 0.24 miles E of I-465 W Leg) in Indianapolis	Marion	0	2	8	61	10	0	3	0.0144
Intersection of E Washington Street at Sherman Drive (~ 2.20 miles E of I-65 / I- 70) in Indianapolis	Marion	0	2	11	38	13	0	2	0.0147
Intersection of Kessler Boulevard West Drive at 58th Street (~ 5.07 miles E of I-65) in Indianapolis	Marion	2	0	0	3	2	2	0	0.0147
Intersection of S Holt Road at Minnesota Street (~ 0.68 miles S of I-70 in Indianapolis	Marion	1	1	5	13	7	1	2	0.0149
Intersection of N Michigan Road at 86th Street (~ 0.89 miles SE of I-465) in Indianapolis	Marion	0	3	27	164	30	0	3	0.0159
Intersection of N Meridian Street at 86th Street (~ 0.86 miles S of I-465 N Leg) in Indianapolis	Marion	1	2	2	36	5	1	4	0.0161
Intersection of N Meridian Street at 91st Street (~ 0.73 miles S of I-465 N Leg) in	57. 5								
Indianapolis	Marion	0	3	19	37	22	0	3	0.0171

		2000 3 /0 1	_ocai inters	CUIUIIS					
			No. Incapa-	No. Non- Incapa-	No. Property-	No. Fatal		No.	
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
	County	Fatal Crashes	Injury Crashes	Injury Crashes	Only Crashes	Injury Crashes	Persons Killed	Seriously Injured	of Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of W 34th Street at High School Road (~0.29 miles E of I-465 W Leg) in									
Indianapolis	Marion	0	2	14	43	16	0	4	0.0174
Intersection of W 16th Street at Pershing									
Road / Lafayette Road (~ 3.81 miles E of I-465 W Leg) in Indianapolis	Marion	0	2	11	33	13	0	2	0.0101
Intersection of E Troy at Shelby Street (~	IVIATION	0		11	33	13	0		0.0191
0.34 miles W of I-65 S Leg)	Marion	1	1	14	17	16	1	1	0.0193
Intersection of E CR 600N at S CR 400E (~1									
mile S of SR 18)	Miami	3	0	0	1	3	3	5	0.0001
Intersection of W CR 200N at N Long Lake Rd (~2.50 miles W of SR 9) S of Marion	Noble	1	2	0	2	3	1	2	0.0054
Intersection of E CR 800S at S CR 1000E	NODIC	1		0			<u>'</u>		0.0034
(~5.50 miles N of US 6) N of Kendalville	Noble	1	1	0	0	2	1	1	0.0158
Intersection of Angling Rd at Ashton Dr (~									
0.2 miles N of US 6) W of Kendalville	Noble	0	2	0	5	2	0	3	0.0172
Intersection of W CR 50S at S CR 600W (~2 miles NW of SR 2) SW of Valparaiso	Porter	1	1	1	5	3	1	2	0.0040
Intersection of Glendale Blvd at Calumet Av	1 01101					<u> </u>			0.0010
(~1.50 miles W of SR 49) in Valparaiso	Porter	0	2	11	52	13	0	2	0.0070
Intersection of W CR 1200N / W CR 600S (Shelby / Hancock Co Ln), at N CR 200W /									
S CR 100W (~.40 miles S of US 52) SE of							_	_	0.000
New Palestine Intersection of Mishawaka Av at S Ironwood	Shelby	1	3	6	18	10	2	5	0.0000
Dr (~0.50 miles N of SR 933) in Mishawaka	St. Joseph	0	2	16	50	18	0	4	0.0004
Intersection of E Mishawaka Av at N Main St (~0.3 miles No of SR 933) in South Bend	St. Joseph	0	2	21	57	23	0	3	0.0000
Intersection of Western Av at S Walnut St	от. оозерн	0		21	37	20	0	3	0.0000
(~1 miles W of SB SR 933) in South Bend	St. Joseph	0	5	19	33	24	0	9	0.0008

		2000 0 70 .	-ooai intere	200110110					
			No.	No. Non-	No.	No.			
				_	_			NI.	
			Incapa-	Incapa-	Property-	Fatal		No.	5
Location		No.	citating	citating	Damage-	and	No.	Persons	Probability
		Fatal	Injury	Injury	Only	Injury	Persons	Seriously	of
	County	Crashes	Crashes	Crashes	Crashes	Crashes	Killed	Injured	Significance
	(CO)	(FTC)	(IINC)	(NINC)	(PDC)	(IFC)	(FTP)	(IINP)	(P)
Intersection of McKinely Av at Apple Rd									
(~1.75 miles N of SR 933) N of Osceola	St. Joseph	1	1	3	8	5	1	1	0.0106
Intersection of Western Avenue at Jackson									
Street (~ 3.31 miles E of US 31) in South									
Bend	St. Joseph	1	1	2	4	4	1	1	0.0198
Intersection of Edison Avenue at Ironwood									
Road (~ 0.37 miles E of SR 23) in South									
Bend	St. Joseph	0	2	8	34	10	0	2	0.0212
Intersection of Wilber Street at Rupel Street									
(~2.62 miles S of I-80) in South Bend	St. Joseph	0	2	2	9	4	0	3	0.0216
Intersection of Salem St at N 6th St (~0.50	0.0000								0.000.70
miles N of SR 26) IN Lafayette	Tippecanoe	0	2	5	25	7	0	3	0.0098
	прресапое	0		5	23		U	3	0.0096
Intersection of Van Bibber Av at S Weinbach									
Av (~0.2 miles N of I-164) in Evansville	Vanderburgh	1	1	2	1	4	1	5	0.0102
Intersection of Bayou Creek Rd at Seminary									
Rd (~7.1 miles S of SR 66) W of Evansville	Vanderburgh	0	2	1	5	3	0	3	0.0157
Intersection of Washington Av at S									
Weinbach Av (~0.75 miles E of US 41) in									
Evansville	Vanderburgh	0	2	24	22	26	0	2	0.0158
Intersection of W Water St at State St (~0.04									
mi S of SR 662) in Newburgh	Warrick	0	2	6	36	8	0	2	0.0023
Intersection of Bell Oaks Dr at Bell Rd (~0.1					30			_	0.0020
miles S of SR 66) Newburgh	Warrick	0	2	3	36	5	0	2	0.0030
Times of or or ooj recordingit	vvailick	1 0		<u> </u>	30	<u> </u>	l U		0.0030